

ELECTRONIC SUBMISSION
ATTORNEY DOCKET NO.: P098US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kurt Berlin

Serial No.: 10/509,144

Filed: 27 September 2004

For: METHOD AND DEVICES FOR DNA METHYLATION ANALYSIS

Examiner: Steven C. Pohnert

Art Unit: 1634

Docket No.: P098US

Date: 5 May 2004

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

**AFFIDAVIT OF DR. KURT BERLIN UNDER 37 C.F.R. § 1.132
(IN SUPPORT OF RESPONSE UNDER 37 C.F.R. § 1.111)**

Sir:

I, Dr. Kurt Berlin, being duly sworn, say:

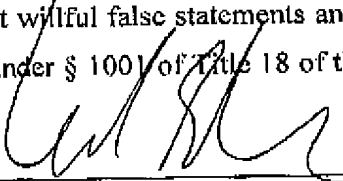
1. I am the sole inventor of the above-identified patent application, and am aware that it discloses and claims a method for cytosine methylation analysis of genomic DNA wherein the genomic template DNA is amplified such that the cytosine methylation pattern of the genomic template DNA is retained in the amplificate sequence(s), said method comprising the following steps: providing a sample of DNA, said DNA being methylated at one or more cytosine positions; heating the genomic DNA to a temperature operative to cause denaturation; cooling the denatured DNA in the presence of single stranded oligonucleotide primers such that the primers anneal to the DNA; heating the mixture in the presence of a polymerase and nucleotides to a temperature such that the primers are extended, thereby resulting in hemimethylated DNA; contacting the hemimethylated DNA with a methyltransferase and a

5 methyl donor molecule under conditions conducive to the methylation of the synthesised strand such that the CpG dinucleotides within the synthesised strand are methylated according to the methylation status of the corresponding CpG dinucleotide on the template strand thereby preserving the genomic methylation pattern; repeating steps (b)-(e) a plurality of times to reach a plurality of nucleic acids, whereby each of said nucleic acids is methylated at the same one or more cytosine positions as the DNA provided in step (a); and analyzing the methylation of the nucleic acids of step (f) whereby the methylation of the DNA of the sample of step (a) is deduced.

10 2. I am familiar with particular aspect of the Office Action from the USPTO dated November 12, 2009 in this case, and understand that one or more claims of the above-referenced patent application remain rejected under 35 U.S.C. § 103, on the alleged grounds that the claimed invention is obvious over Berlin (WO01/27317, published April 01, 2001, National
15 Stage U.S. Patent No.: 7,179,594 issued February 20, 2007) in view of Allis (WO02/18418 published March 07, 2002), Pradhan, et al (Journal of Biological Chemistry 1999 vol. 274, p. 33002-33010) and New England BioLabs catalog (2000-2001. P. 91).

20 3. However, I am the sole inventor of the Examiner's cited reference Berlin (WO01/27317, published April 01, 2001, National Stage U.S. Patent No.: 7,179,594 issued February 20, 2007) and the said invention reference is not by "another".

25 4. I further declare that all statements made herein of my own knowledge are true and that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code.


Kurt Berlin